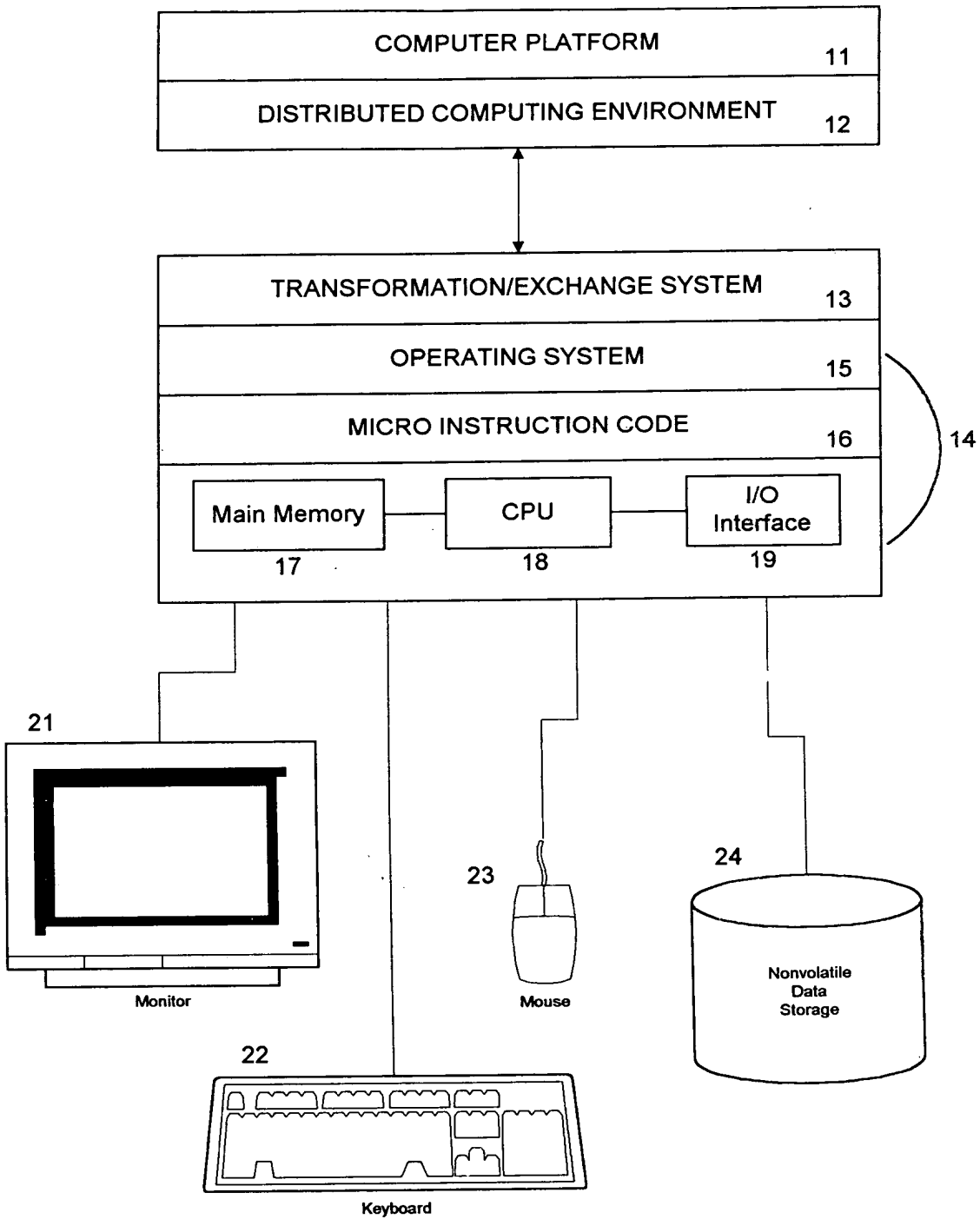
COMPUTER PLATFORM
11
DISTRIBUTED COMPUTING ENVIRONMENT
12
TRANSFORMATION/EXCHANGE SYSTEM
13
OPERATING SYSTEM
15
MICRO INSTRUCTION CODE
16
14
Main Memory
17
CPU
18
I/O Interface
19
21
Monitor
23
Mouse
24
Nonvolatile Data Storage
22
Keyboard

FIGURE 1

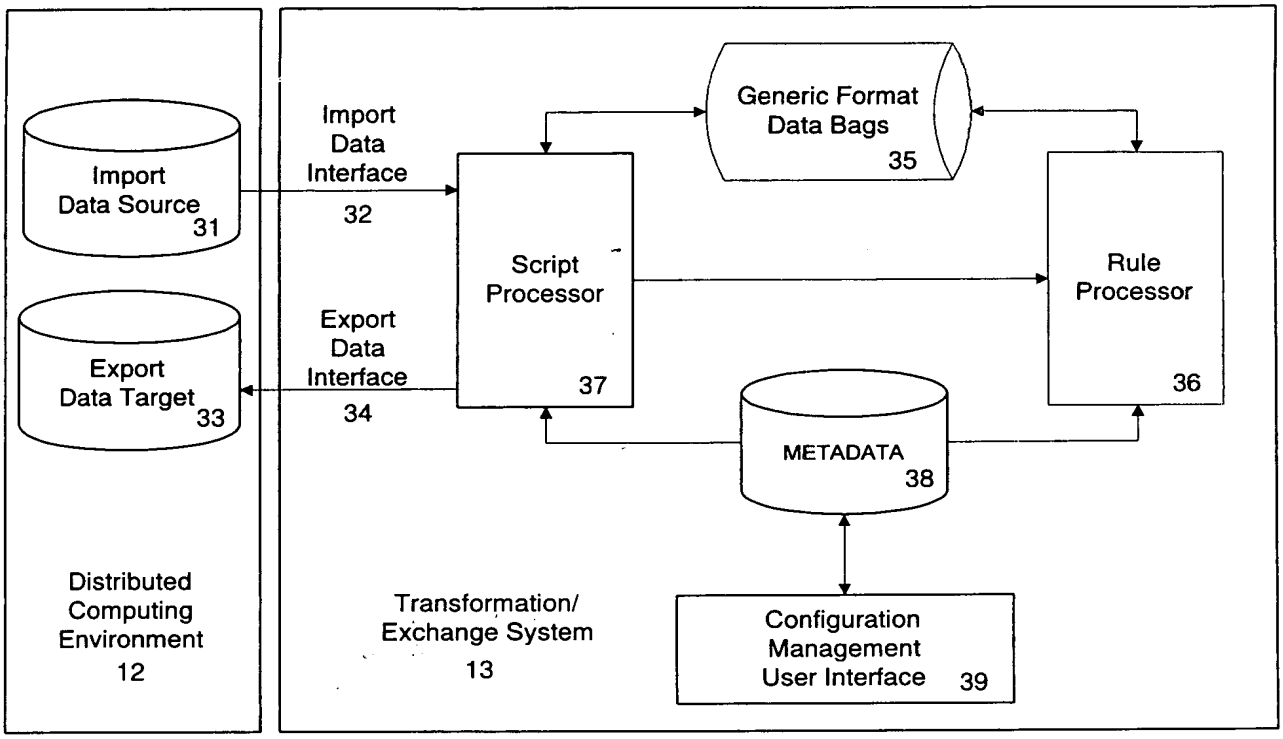

FIGURE 2

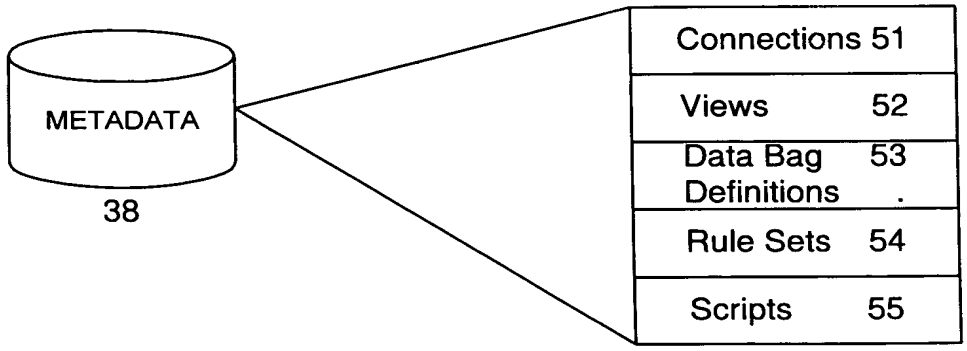

FIGURE 3

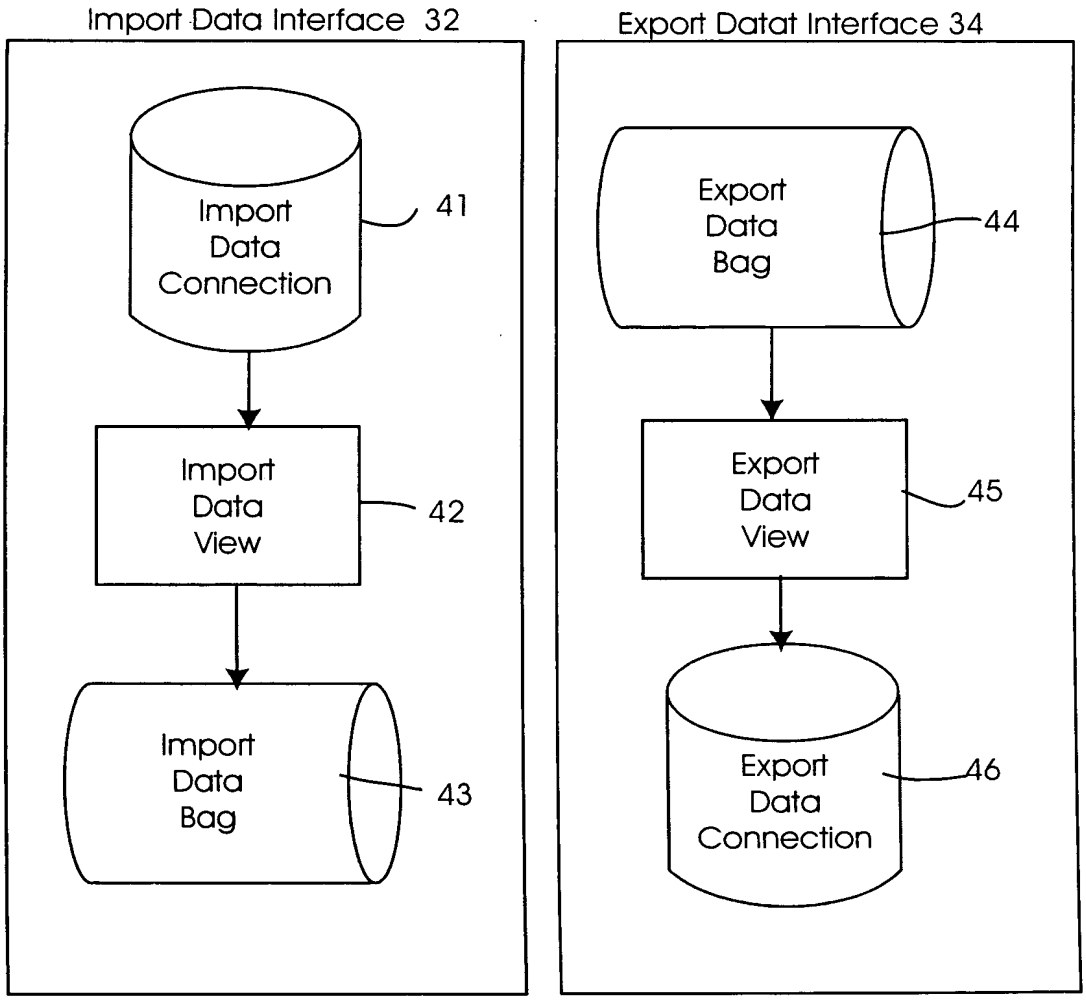
Import Data Interface 32
Import Data Connection
41
Import Data View
42
Import Data Bag
43
Export Datat Interface 34
Export Data Bag
44
Export Data View
45
Export Data Connection
46

FIGURE 4

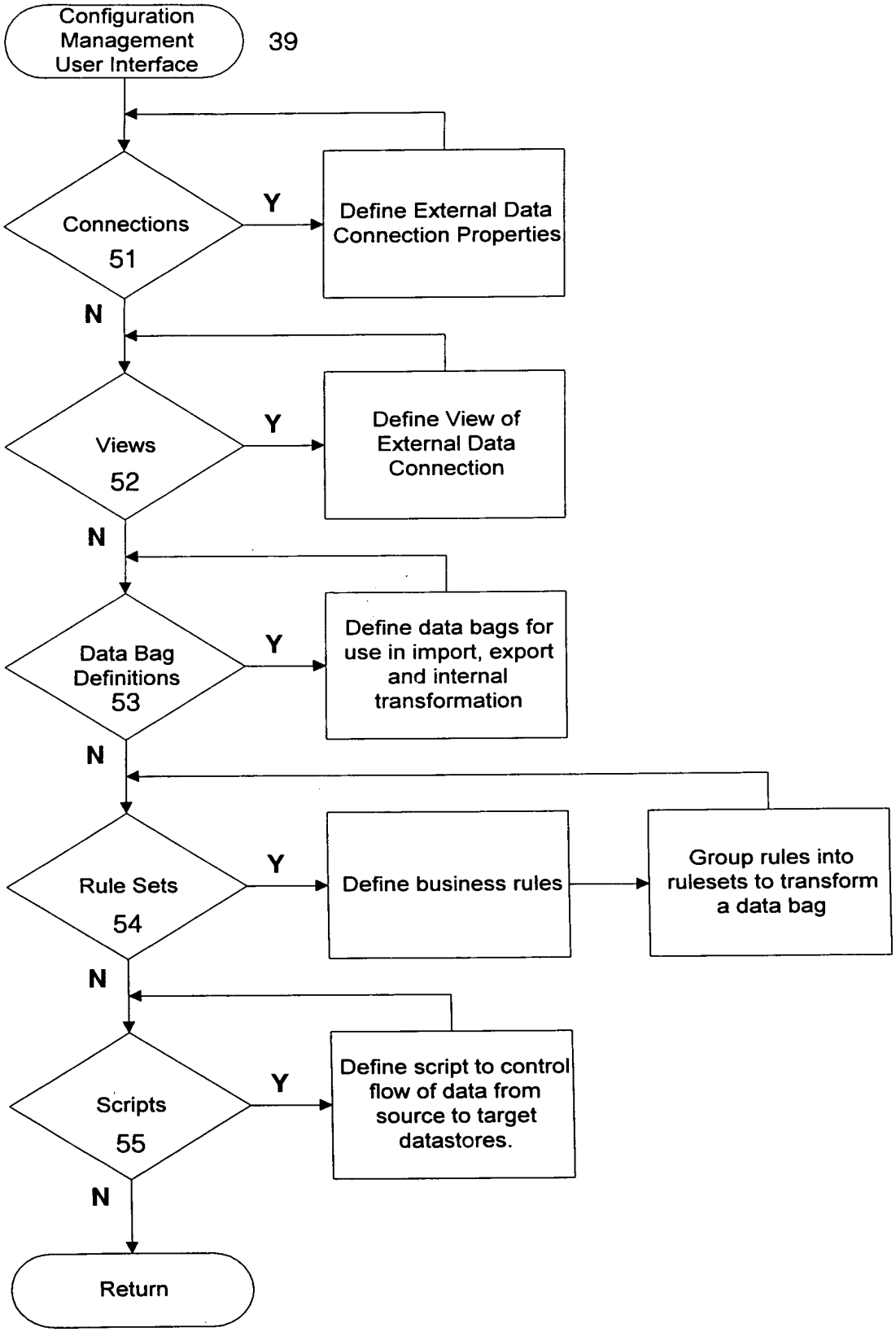
Configuration Management User Interface
39
Connections
51
Y
Define External Data Connection Properties
N
Views
52
Y
Define View of External Data Connection
N
Data Bag Definitions
53
Y
Define data bags for use in import, export and internal transformation
N
Rule Sets
54
Y
Define business rules
Group rules into rulesets to transform a data bag
N
Scripts
55
Y
Define script to control flow of data from source to target datastores.
N
Return

FIGURE 5

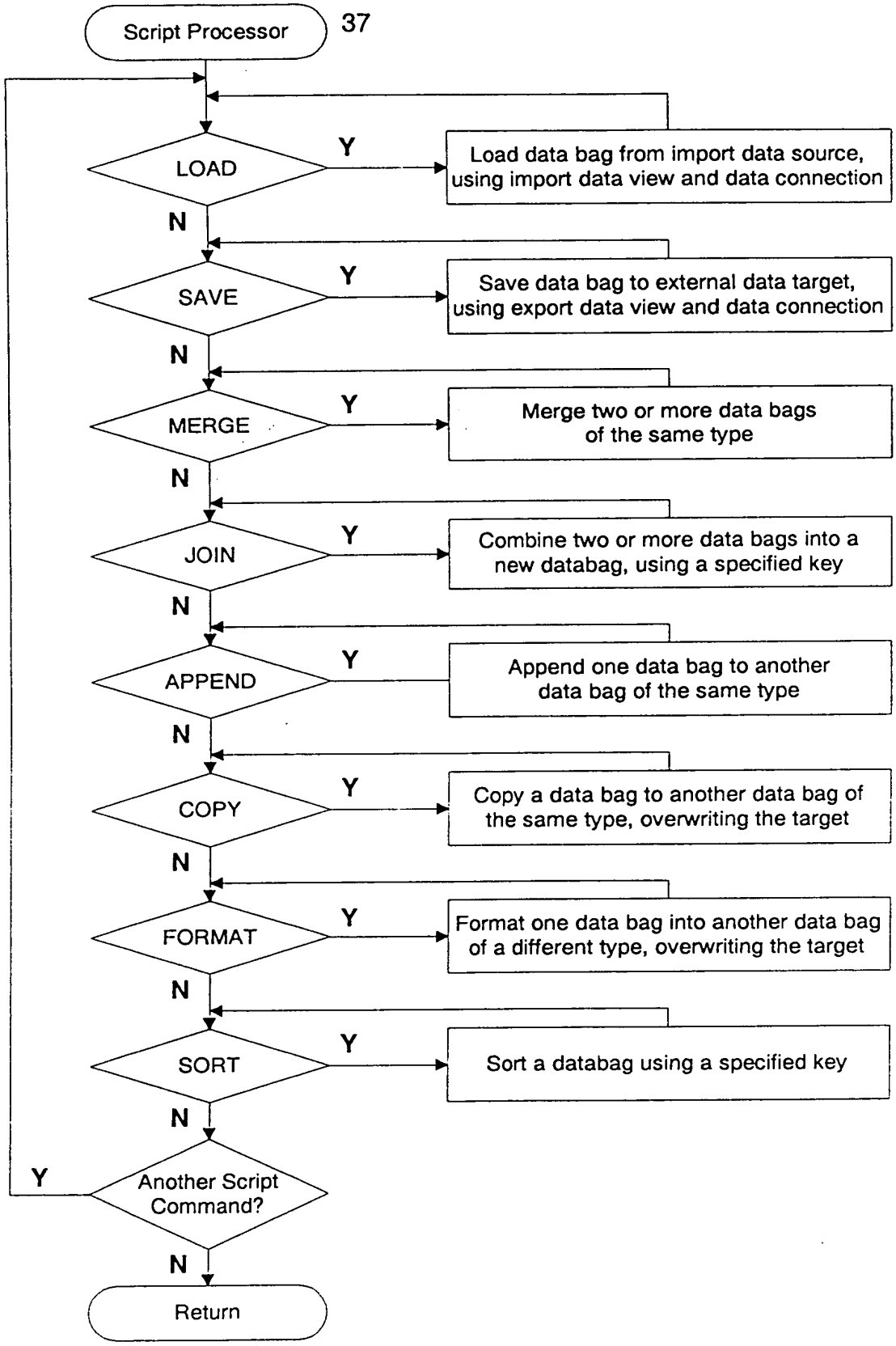
Script Processor
37
LOAD
Y
Load data bag from import data source, using import data view and data connection
N
SAVE
Y
Save data bag to external data target, using export data view and data connection
N
MERGE
Y
Merge two or more data bags of the same type
N
JOIN
Y
Combine two or more data bags into a new databag, using a specified key
N
APPEND
Y
Append one data bag to another data bag of the same type
N
COPY
Y
Copy a data bag to another data bag of the same type, overwriting the target
N
FORMAT
Y
Format one data bag into another data bag of a different type, overwriting the target
N
SORT
Y
Sort a databag using a specified key
N
Another Script Command?
Y
N
Return

FIGURE 6

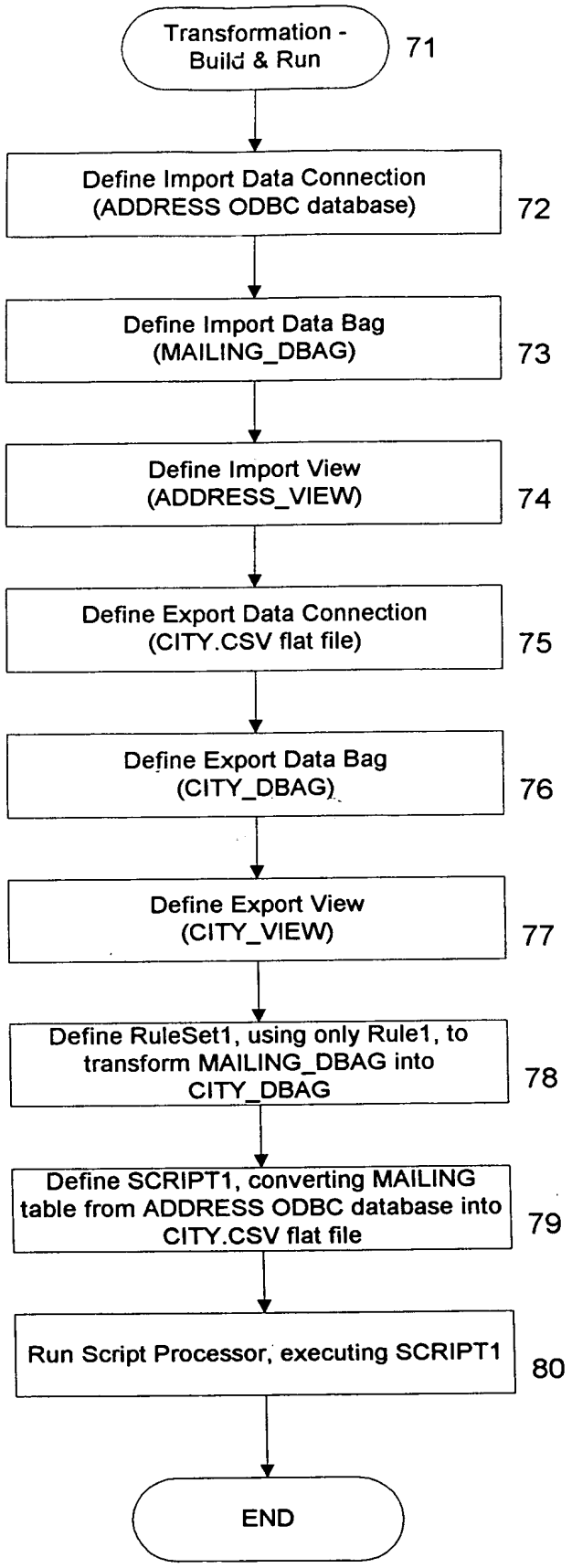
Transformation - Build & Run
71
Define Import Data Connection (ADDRESS ODBC database)
72
Define Import Data Bag (MAILING_DBAG)
73
Define Import View (ADDRESS_VIEW)
74
Define Export Data Connection (CITY.CSV flat file)
75
Define Export Data Bag (CITY_DBAG)
76
Define Export View (CITY_VIEW)
77
Define RuleSet1, using only Rule1, to transform MAILING_DBAG into CITY_DBAG
78
Define SCRIPT1, converting MAILING table from ADDRESS ODBC database into CITY.CSV flat file
79
Run Script Processor, executing SCRIPT1
80
END

FIGURE 7

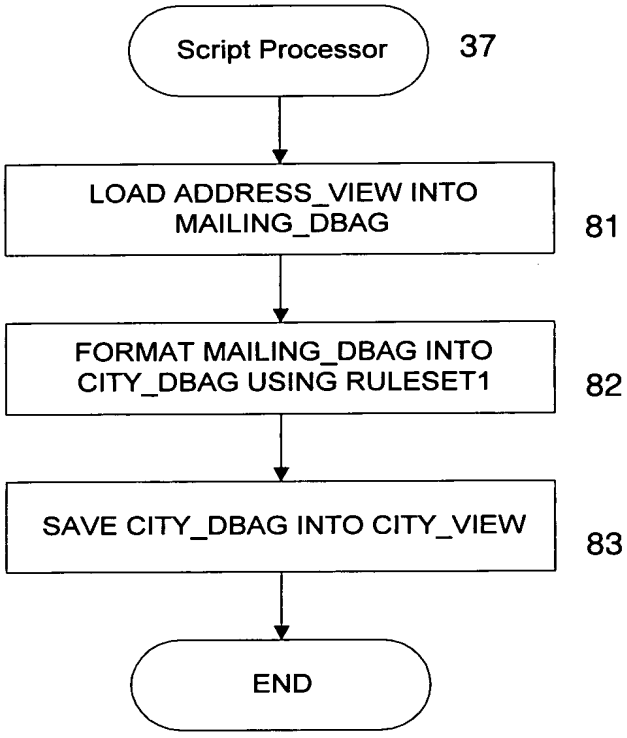

FIGURE 8

```
IF IN.CITY = "OTTAWA"
        OUT.NAME = APPEND( IN.FIRST_NAME, " ", IN.LAST_NAME )
        OUT.ADDR = IN.ADDR
        OUT.CITY = IN.CITY
        OUT.AGE = IN.AGE
END IF
```

FIGURE 9

ODBC database : ADDRESS.MDB 101

FIRST_NAME	LAST_NAME	ADDRESS	CITY	COUNTRY	AGE
Bob	Drake	10 Penny St.	Toronto	CA	29
Susan	Hellman	55 Birch Rd.	Ottawa	CA	35
John	Bull	101 Pullman Ave.	New York	US	23
Josef	Karsch	31 Rideau St.	Ottawa	CA	85

FIGURE 10

Data Bag : MAILING_DBAG 111

DATA DEFINITION COLLECTION 112

KEY	ITEM NAME	ITEM TYPE	PARENT	MAX. OCCURS	ITEM COUNTER	LEVEL
FIRST_NAME	FIRST_NAME			1		1
LAST_NAME	LAST_NAME			1		1
ADDRESS	ADDRESS			1		1
CITY	CITY			1		1
COUNTRY	PROV			1		1
AGE	AGE			1		1

DATA GROUP COLLECTION 113

KEY	VALUE	KEY	VALUE	KEY	VALUE	KEY	VALUE
FIRST_NAME	Bob	FIRST_NAME	Susan	FIRST_NAME	John	FIRST_NAME	Josef
LAST_NAME	Drake	LAST_NAME	Hellman	LAST_NAME	Bull	LAST_NAME	Karsch
ADDRESS	10 Penny St.	ADDRESS	55 Birch Rd.	ADDRESS	101 Pullman Ave.	ADDRESS	31 Rideau St.
CITY	Toronto	CITY	Ottawa	CITY	New York	CITY	Ottawa
COUNTRY	CA	COUNTRY	CA	COUNTRY	US	COUNTRY	CA
AGE	29	AGE	35	AGE	23	AGE	85

FIGURE 11

0543555.0656

Data Bag : CITY_DBAG 121

DATA DEFINITION COLLECTION 122

KEY	ITEM NAME	ITEM TYPE	PARENT	MAX. OCCURS	ITEM COUNTER	LEVEL
NAME	NAME	TEXT		1		1
ADDRESS	ADDRESS	TEXT		1		1
CITY	CITY	TEXT		1		1
AGE	AGE	INTEGER		1		1

DATA GROUP COLLECTION 113

KEY	VALUE	KEY	VALUE
FIRST_NAME	Susan	FIRST_NAME	Josef
LAST_NAME	Hellman	LAST_NAME	Karsch
ADDRESS	55 Birch Rd.	ADDRESS	31 Rideau St.
CITY	Ottawa	CITY	Ottawa
COUNTRY	CA	COUNTRY	CA
AGE	35	AGE	85

FIGURE 12

Delimited Flat File : CITY.CSV 131

Susan Hellman,55 Birch Rd,Ottawa,35
Josef Karsch,31 Rideau St,Ottawa,85

FIGURE 13

```
FIRST_NAME          CHAR(30)
LAST_NAME           CHAR(30)
ADDR_LINE1          CHAR(30)
ADDR_LINE2          CHAR(30)
CITY                CHAR(30)
PROV                CHAR(3)
NBR_CHILDREN        INTEGER(3)
CHILDREN            OCCURS 1 TO 10 TIMES
        CHILD_NAME      CHAR(30)
        CHILD_AGE       INTEGER(3)
```

FIGURE 14

Repeating Data File : REPEAT.TXT 151

Henry	Smith	61 Falldown Rd.	RR1	Greely	Ont	3	Amy	16	John	13	Bob	23
John	Kierstead	1034 Ayr Place	Apt. 132	Ottawa	Ont	1	Susan	10				

FIGURE 15

Data Bag : REPEATING_DBAG 161

DATA GROUP DEFINITION 162

KEY	ITEM NAME	ITEM TYPE	PARENT	MAX. OCCURS	ITEM COUNTER	LEVEL
FIRST_NAME	FIRST_NAME	TEXT		1		1
LAST_NAME	LAST_NAME	TEXT		1		1
ADDR_LINE1	ADDR_LINE1	TEXT		1		1
ADDR_LINE2	ADDR_LINE2	TEXT		1		1
CITY	CITY	TEXT		1		1
PROV	PROV	TEXT		1		1
NBR_CHILDREN	NBR_CHILDREN	INTEGER		1		1
CHILDREN	CHILDREN	GROUP		1		1
CHILDREN[*].CHILD_NAME	CHILD_NAME	TEXT	CHILDREN	10	NBR_CHILDREN	2
CHILDREN[*].CHILD_AGE	CHILD_AGE	INTEGER	CHILDREN	10	NBR_CHILDREN	2

DATA GROUP COLLECTION 163

FIRST_NAME	Henry	FIRST_NAME	John
LAST_NAME	Smith	LAST_NAME	Keirstead
ADDR_LINE1	61 Falldown Rd.	ADDR_LINE1	1034 Ayr Place
ADDR_LINE2	RR1	ADDR_LINE2	Apt. 132
CITY	Greely	CITY	Ottawa
PROV	Ont	PROV	Ont
NBR_CHILDREN	3	NBR_CHILDREN	1
CHILDREN[1].CHILD_NAME	Amy	CHILDREN[1].CHILD_NAME	Susan
CHILDREN[1].CHILD_AGE	16	CHILDRE[1].CHILD_AGE	10
CHILDREN[2].CHILD_NAME	John		
CHILDREN[2].CHILD_AGE	13		
CHILDREN[3].CHILD_NAME	Bob		
CHILDREN[3].CHILD_AGE	23		

FIGURE 16

```
FOR CHILD_NDX = 1 TO NBR_CHILDREN
        IF CHILDREN[ CHILD_NDX ].CHILD_AGE < 20
                OUT.PARENT = APPEND( IN.FIRST_NAME, " ", IN.FIRST_NAME )
                OUT.CHILD_NAME = IN.CHILDREN[ CHILD_NDX ].CHILD_NAME
                OUT.CHILD_AGE = IN.CHILDREN[ CHILD_NDX ].CHILD_AGE
        END IF
END FOR
```

FIGURE 17

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